

RESPONSE

Applicant and their undersigned attorney have carefully reviewed the first Office Action of December 1, 2005 in the above-identified patent application together with the prior art references cited and relied on by the Examiner in the rejections of the claims. Applicant has also studied the specification, as requested, in an attempt to locate typographical or other errors in the specification. Applicant is not aware of any errors requiring correction.

Applicant believes that the present invention, as currently amended, is not anticipated by, and is not obvious in light of, the prior art. Reexamination and reconsideration of the application, and allowance of the claims is respectfully requested.

Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the phrase “the polyisobutylene of the alkyl-substituted succinimide” lacks a proper antecedent basis in the claim language. Polyisobutylene succinimide anhydride (“PIBSA”) is discussed in paragraph 33. Applicant herein amends the claims to cure the objection based on a lack proper antecedent support in the claim language.

The subject application relates to a synergistic interaction between an overbased calcium sulfonate detergent and an ashless succinimide dispersant that allows for the formulation of improved distillate fuel additive packages. In addition to the metallic detergent and the ashless dispersant, the additive compositions contain an organometallic complex of manganese. Distillate fuels treated with the additive compositions exhibit improved combustion because of the detergent and the organometallic manganese compound and good fuel system cleanliness because of the detergent/dispersant interaction.

Applicant is largely in the business of fuel and lubricant additives, and the assignee of the present invention invests considerable resources in the research and development of new, improved, and optimized products and methods related to such additives. The present application is the result of that investment and effort. Specifically, it has been found that the optimized treat rate of the overbased calcium sulfonate in the above-identified invention should supply 10 – 120 PTB (40 – 460 ppm wt/wt) to the fuel, and it should preferably supply 30 – 50 PTB (116 -193 ppm).

Claims 1-9 of the present application are rejected under 35 U.S.C. § 102(b) as being unpatentable over Wallace (5,944,858). The Wallace reference, which is also the property of Ethyl, LTD of the U.K., relates to hydrocarbonaceous fuels and additive compositions which comprise a fuel-soluble manganese carbonyl compound, a fuel-soluble alkali or alkaline earth metal-containing neutral or basic detergent, and a fuel-soluble ashless dispersant.

As the Examiner notes, the amount of the metal contributed by the overbased sulfonate is 5-50 ppm. In fact, the invention in Wallace "*requires...* only 5 to 50 ppm of an alkali or alkaline earth metal" (see Col. 1 lines 28-31). The reference, therefore, does not teach the preferred range of the present invention. The reference does not suggest, and in fact appears to teach away, from the preferred range of the present invention.

The present invention now stands amended to more accurately reflect the preferred treat rate range for the overbased calcium sulfonate detergent. For any one or more of the foregoing reasons, Applicant submits that the present application is now in condition for allowance. Applicant respectfully requests that the rejections be withdrawn and the application pass forward to issuance.

FEES

It is believed that there are no fees associated with this filing. However, in the event the calculations are incorrect, the Commissioner is authorized to charge any deficiencies or credit any overpayment in fees associated with this communication to Deposit Account No. 05-1372.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Dennis H. Rainear", is written over a horizontal line.

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